



# RICHTERSWIL

## Municipal WWTP

22,500 P.E.

*The municipality of Richterswil is an idyllic location by the south shore of Lake Zurich and counts 13,000 inhabitants.*

*The local wastewater treatment plant had to be restructured after 32 years of operation and has been counting on the AEROSTRIP® aeration system since 2017.*

<b>NUMBER OF TANKS</b>	4
<b>TOTAL VOLUME</b>	1,462 m <sup>3</sup>
<b>WATER DEPTH</b>	4 m
<b>SOTR (Standard Oxygen Transfer Rate)</b>	max. 220.1 kg O <sup>2</sup> /h
<b>TOTAL AIRFLOW</b>	max. 2,357 Nm <sup>3</sup> /h
<b>TOTAL AEROSTRIP® DIFFUSERS</b>	208

## NEW OPERATIONAL BENCHMARK

„Trust, but verify“, is a belief at WWTP Richterswil.

The operator doubted the capability of the AEROSTRIP® system to supply a specific oxygen yield (SSOTR) of 24.5 g/ Nm<sup>3</sup> per m of immersion, since values of more than 18 gram are considered highly optimistic.

An independent consulting engineer was brought in to check the guaranteed oxygen input values. The oxygen test, performed by AAB – Dr. Wilhelm Frey, proved the operator’s doubts to be wrong:

Usually, the SSOTR of an aeration system decreases with rising load and is at its lowest oxygen yield at maximum load.

In Richterswil the values of “Maximum Load” operational scenario were measured.

Under maximum load, Dr. Frey measured an SSOTR of 26,\* g per Nm<sup>3</sup> and m of immersion.

Dr. Frey’s measurement exceeded the calculated value of



24.5 g and it is 44 % higher than the „highly optimistic“ value of 18 g.

Hence it was proven, that the perfect interaction of planning experience and product quality leads to impressive results.

\*) referring to standard conditions (20°C, 1013 hPa)

# AEROSTRIP®

fine bubble diffusers by AQUACONSULT